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Jeong Hwan Hwang

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EXAMINER

SOLOMON, GARY L

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,607

Applicant(s)

HWANG, JEONG HWAN

Examiner

Gary L Solomon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/11/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a **single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected as failing to define the invention in the manner required by 35

U.S.C. 112, second paragraph.

4. The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure, which goes to make up the device, must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

5. Claim 14 recites the limitation "etc." Appropriate Correction Required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2, 4-5, 8, 10, and 12-13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Tullis (US 6,535,243).

8. For claim 1, Tullis discloses a PC camera (Figure 1) with various applications comprising:

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a memory mean for storing digital audio data (Column 8, Lines 15-24); and

a digital audio decoding mean (In Column 8, Lines 15-24) for reproducing original sound by decoding the digital audio data stored on the memory mean in a digital audio reproducing mode (Abstract; Figure 1; Column 8, Lines 7-24; The audio data is captured by a microphone and stored on the memory. The data can be then be read and replayed on the speaker).

For claim 2, Tullis discloses the previous limitations of claim 1, and also wherein the PC camera further comprises a storing mean for storing digital audio data form the PC on the memory mean (Column 8, Lines 15-24).

For claim 4, Tullis discloses a PC camera with various applications, comprising:

a viewfinder (Element 68) for recognizing direction and range of a photographing object (Column 4, Lines 61-64; Inherently, the viewfinder or LCD shows the image that is being captured as the image is captured. It allows the photographer to easily place the camera in the correct range and direction to take the picture of the object. When an image is being photographed on the LCD is turned on, the image is displayed. Therefore, it recognizes range and direction of the object);

a memory mean (Element 52) for storing a photographed compressed image (Column 4, Lines 25-47) and digital audio data (Column 8, Lines 7-24; Element 52 stores the digital audio data. Tullis clearly teaches that voice data is managed in the same manner as image data.);

an image-processing mean for transmitting a picture processed photographing image signal to the PC in a videoconference mode (Figure 2, Element 56; Column 5, Lines 13-41),

storing the picture processed-photographing image signal on the memory mean after compressing it in a digital camera mode (Column 4, Lines 27-31),

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transmitting the compressed image signal stored on the memory mean to the PC in a still image transmission mode (Column 4, Lines 27-31);

a digital audio decoding mean for reproducing the original sound by decoding the digital audio data stored on the memory mean when a digital audio reproducing mode is set (Column 8, Lines 7-24); and

a control mean (Figure 2 Element 56) for controlling the operation corresponding to the pertinent mode after judging the videoconference mode, digital camera mode, still image transmission mode (Column 2, Line 40 though Column 3, Line 40) or digital audio reproducing mode (Figure 2, Element 64; Column 4, Lines 53-60; Column 7, Lines 52-65. The control mean controls the still video and digital transmission modes as is explained Column 8, Lines 15-24).

For claim 5, Tullis discloses all the previous limitations of claim 4, and also wherein the image-processing mean stores the digital audio data from the PC on the memory mean (Column 8, Lines 7-24).

For claim 8, Tullis discloses all the previous limitations of claim 1 or 4, and also wherein the PC camera further comprises a memory mean separately installed on the external in order to store the photographed image and digital audio data (In Figure 2, a laptop computer is considered a memory mean, which is able to store photos or images transmitted from the PC camera).

For claim 10, Tullis discloses all the previous limitations of claim 4, and also wherein the PC camera further comprises a wireless communication mean for converting a photographed image or a compressed image stored on the memory mean into a wireless signal and transmitting it to the PC (Column 8, Lines 7-24; Column 2, Lines 40-57, Column 5, Lines 14-42).

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For claim 12, Tullis discloses all the previous limitations of claims 4 and 10, and also wherein the PC camera further comprises a wireless communication mean stores the digital audio data received from the PC with the wireless memory mean (Column 8, Lines 7-24; Column 2, Lines 40-57).

For claim 13, Tullis discloses all the previous limitations of claim 4, and also wherein the PC camera further comprises a display mean (Figure 2, display 8) for displaying image photographed at the present by installing selectively on the external besides the display mean installed on the PC camera (Column 5, Lines 4-7).

9. Claims 1, 3, 7, and 14 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Suzuki (US 6,380,975).

10. For claim 1, Suzuki discloses a PC camera (Figure 1) with various applications comprising:

a memory mean (Element 103) for storing digital audio data (Figure 43); and

a digital audio decoding mean (Figure 18 and Column 20, Line 55 through Column 21, Line 43) for reproducing original sound by decoding the digital audio data stored on the memory mean (Element 103) in a digital audio reproducing mode (Column 37, Lines 30-54; Column 37, Lines 15-20).

The image and voice data is recorded in the recording mode. It is then stored on the memory as a character code. The character code then has to be decoded in order or it to be replayed in the regeneration mode.

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For claim 3, Suzuki discloses the previous limitations of claim 1, and also wherein the PC camera automatically switches into the digital audio reproducing mode when an earphone is inserted (Column 38, Lines 10-57).

The earphone is connected in the jack. The detection is made and thus the switch is activated to turn the Suzuki invention into a voice reproduction or digital audio reproducing mode.

For claim 7, Suzuki discloses the previous limitations of claims 1 and 3, and also wherein the PC camera comprises a switch inside of an earphone jack (Figure 11, Element 122) in order to turn on the digital audio reproducing mode (Column 38, Lines 10-57).

For claim 14, Suzuki discloses all the previous limitations of claim 1 and also wherein the PC camera comprises additionally a plurality of adjustment buttons (Column 18, Lines 36-62) for switching in to the video conference mode or digital camera mode (Column 18, Line 48) or digital audio reproducing mode (Column 20, Line 55 through Column 21, Line 6; Column 17, Lines 65-67), starting photographing in the digital camera mode (Column 18, Line 48), selecting a music in the digital audio reproducing mode (Column 20, Line 64 through Column 21, Line 6), and selecting functions such as a reproducing start (Column 18, Line 46) and volume adjustment (Figure 16; Column 19, Line 39 through Column 20, Line 54).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 6-7, 9, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tullis (US 6,535,243) in view of Suzuki (US 6,380,975).

For claim 6, Tullis discloses all the previous limitations of claim 4, but lacks teaching wherein the control mean judges a switch to the digital audio reproducing mode when an earphone is inserted in a state in which the lens cap is closed.

However, Tullis does disclose a control mean switch that activates the camera into a digital audio reproducing mode (Column 8, Lines 7-24). Specifically, Tullis lacks teaching of the earphone and the lens cap.

Nevertheless, Suzuki teaches the digital audio reproducing mode when the earphone is inserted (Column 37, Line 60 through Column 39, Line 10).

Combining the inventions of Suzuki and Tullis and configuring them together would allow for a wireless digital camera that transmits image and sound to a host computer and a host computer that transmits image and sound data back to the camera. The data is then either stored on the host computer or camera.

Still, Suzuki does not specify whether a lens cap is closed or open.

However, it would have been obvious for one of ordinary skill in the art at the time of the invention to have been motivated to use the lens cap when it is closed to determine the state of whether the camera would be recording or reproducing in combination with an earphone being inserted into an earphone jack at the time of the invention in order to determine whether the camera is in reproducing or recording mode as suggested by Suzuki in Column 38, Lines 11-64.

For claim 7, Tullis and Suzuki disclose the obvious limitations of claims 4 and 6, and Suzuki also discloses wherein the PC camera comprises a switch inside of an earphone jack in

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order to turn on the digital audio reproducing mode (Column 37, Line 60 through Column 39, Line 10).

For claim 9, Tullis discloses the previous limitations of claim 4, and Suzuki also discloses wherein the PC camera further comprises a switch wherein the PC camera further comprises a switch installed on the external of the PC camera in order to switch the digital mode into the digital audio reproducing mode (Column 18, Lines 24-64).

For claim 14, Tullis discloses the previous limitations of claims 1 or 4, but lacks teaching wherein the PC camera comprises additionally a plurality of adjustment buttons for switching in to the video conference mode or digital camera mode or digital audio reproducing mode, starting photographing in the digital camera mode, selecting a music in the digital audio reproducing mode, and selecting functions such as a reproducing start and volume adjustment.

However, Suzuki teaches wherein the PC camera comprises additionally a plurality of adjustment buttons (Column 18, Lines 36-62) for switching in to the video conference mode or digital camera mode (Column 18, Line 48) or digital audio reproducing mode (Column 20, Line 55 through Column 21, Line 6; Column 17, Lines 65-67), starting photographing in the digital camera mode (Column 18, Line 48), selecting a music in the digital audio reproducing mode (Column 20, Line 64 through Column 21, Line 6), and selecting functions such as a reproducing start (Column 18, Line 46) and volume adjustment (Figure 16; Column 19, Line 39 through Column 20, Line 54). It is noted that Tullis does teach a control interface (64) to allow an operator to control the functions of the camera (Column 4, Lines 53-60)

Adding the functionality and buttons of the Suzuki reference would have been obvious to one of ordinary skill in the art at the time of the invention to the control interface (64) of Tullis in

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order to allow more sophisticated still picture and motion picture data that is combined with digital voice data as suggest by Suzuki in Figures 16 and 19 (See also Column 18, Lines 24-36).

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tullis (US 6,535,243) in view of Narayanaswami (US 6,657,654).

For claim 11, Tullis discloses all the previous limitations of claims 1 or 4, but lacks teaching wherein a USB standard is used for data transfer between the PC and the PC camera.

However, Narayanaswami teaches a camera with wireless high speed data transfer to a computer, wherein a USB standard is used for data input/output (Column 4, Lines 33-54).

It would have been obvious for one skilled in the art to have been motivated to configure the system of Tullis with USB data transfer of Narayanaswami in order to enable rapid data transfer between the camera and PC (Column 4, Lines 35-39).

14. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tullis (US 6,535,243) in view of Suzuki (US 6,380,975) in further view of Ando (US 4,888,795).

For claim 15, Tullis and Suzuki discloses the previous limitations of claims 1 and 14 or 4 and 14, but lacks teaching wherein the PC camera further comprises a hold key for invalidating a function button of the other mode or a key select by holding a select mode after a certain mode is selected.

However, Tullis and Suzuki do teach and disclose a multifunction PC camera with numerous switches and buttons as previously noted. The idea and teaching of a disable key or a hold key to invalidate functions after they are selected is not taught in either Suzuki or Tullis. This would be useful in many situations and certainly when one would not want a picture to transmitted (Column 1, Lines 35-40).

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Nevertheless, Ando teaches a video telephone apparatus that uses a key that invalidates or disables (Figure 1, Element 73) a picture from being sent during video teleconferencing. This would be beneficial if a bad picture were taken.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have been motivated to configure a hold key that disables a picture from being sent after it has been selected in the apparatus of Tullis and Suzuki in order to not send an undesirable picture image as suggested by Ando in Column 4, Lines 35-40.

Conclusion


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L Solomon whose telephone number is (703)-305-4370.

The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's ^{primary} ~~supervisor~~, Ngoc-Yen Vu can be reached on (703)-305-4946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GLS


NGOC-YEN VU
PRIMARY EXAMINER